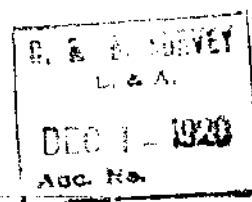


4140



4140

Form 504 DEPARTMENT OF COMMERCE U. S. COAST AND GEODETIC SURVEY
State: <i>Alaska</i>
11-5613
DESCRIPTIVE REPORT.
<i>Hyd.</i> Sheet No. <i>4140</i>
LOCALITY:
<i>Alaska Peninsula</i>
<i>North Entrance to</i>
<i>Wide</i>
<i>Kalagin Bay</i>
<i>120</i>
CHIEF OF PARTY:
<i>F. H. Hardy</i>

DESCRIPTIVE REPORT
TO ACCOMPANY
HYDROGRAPHIC SHEET NO. _____

North Entrance to Kialagvik Bay, Alaska

Scale 1 - 20,000

Str. SURVEYOR

F. H. Hardy, Commanding.

Season of 1920.

Descriptive Report
to accompany
Hydrographic Sheet No.
North Entrance to Kialagvik (Nide) Bay
scale 1-20,000

The work on this sheet can only be considered reconnaissance work as very little time was available. Natural objects, such as pinnacle rocks, tangoria to islands, ect. were used for signals, but as these objects had been determined by the topographer for that purpose, the positions are quite accurate. A few of the positions where tangoria or other indefinite objects were used cannot be considered rigid fixes, and where such fixes occur, the positions have been plotted on line.

The tidal reductions were figured from the Tide Tables for Kodiak, using a correction of + 17 in. and a range 3.4 feet greater than at Kodiak.

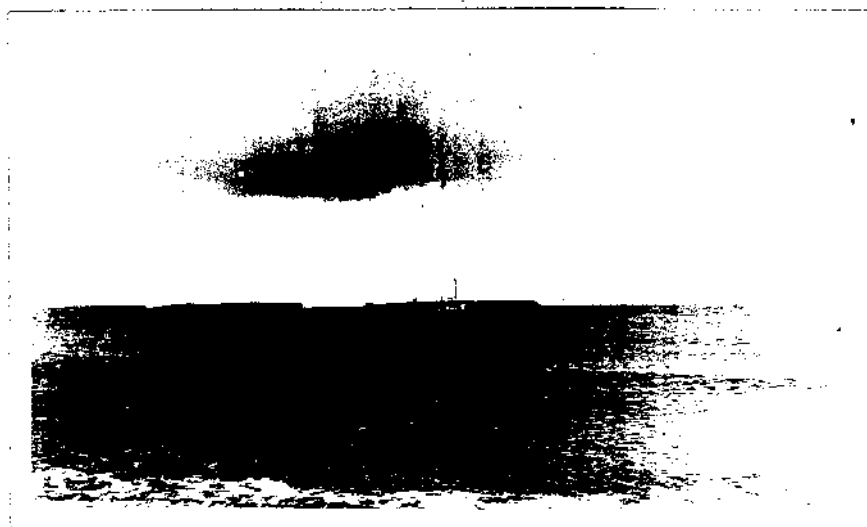
General Description of Coast
Cape Igvak to Kialagvik Bay



Cape Igvak from Cape Kanatak

Cape Igvak is the southern extremity of a chain of conical peaks about 1800 feet in height. It is a conspicuous headland. A rocky reef extends about 1/4 mile in a southeasterly direction from the point. From Cape Igvak the shore trends W.S.W. about 4 miles to a low point which forms the north entrance point of Kialagvik Bay. The shore is fringed by rocks and reefs. About 0.7 of a mile east of this point and 1/2 mile off shore there is a low island. The shore has been sketched from a few tangents. @ Mump is a little hill, distinguishable only from the westward. Breakers have been seen about 1/4 mile south of the island. The passage between the island and the mainland has not been examined, but it appears to be foul.

Extending S.S.W. mag. from the north entrance point for about 11 miles is a chain of islands which forms the outer side of Kialagvik Bay. The bay varies from three to five miles in width, and is divided into two parts by the narrows, less than a mile wide between coal point and the northern group of islands.



Northern Group of Islands

Kialagvik Bay

The islands composing the northern group are all low and flat, covered with grass and brush. The shores are rocky, and many rocks and pinnacles are scattered among the islands. The islands to the southward are higher, the larger ones being about 125 feet high.

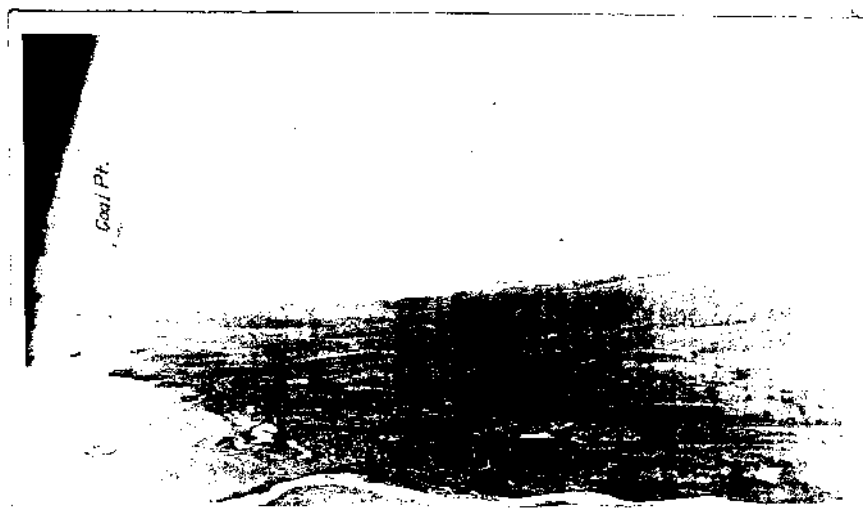
The western shore of Kialagvik Bay is a low plain fronting a chain of mountains. The shore line is mostly sandy, although the projecting points are usually rocky. Coal Point is low and flat. A small island and a pinnacle rock lie about 1/3 of a mile southward of it. The point about 1/2 mile west of Coal Point has the same general formation and appearance.

The part of Kialagvik Bay North of Coal Point is open to the southeastward, but affords some shelter from N.E. and is protected from north to southwest. The "Yukon" anchored about 1/2 mile off shore in 3 fathoms, sandy bottom, off the stream on the western side of the bay. Shoal water, with many rocks and reefs, extends as much as 1 1/4 miles off the western shore. A conspicuous pinnacle rock, (⊙ East) 40 feet high lies about 1 1/2 miles north of Coal Point and foul ground extends about one mile southeastward from ~~the latter~~, ⊙ East terminating in a long reef some points of which bare about three feet. It breaks on the southern end of this reef in moderate weather, (⊙ Tracks). So far as known, the middle of the bay is clear with depths of twelve fathoms at the entrance, shoaling gradually towards the head.

The long arm indenting the north shore of the bay is very foul. Anchorage for small boats has been reported in this bay but the YUKON could find no entrance and the bay appears to be shoal and full of rocks.

The southern part of Kialagvik Bay extends about 11 miles south of Coal Point. The bottom is very irregular with depths up to 35 fathoms. So far as known there are no hidden dangers. The southern end is shoal a long distance from shore. The whole bay is sheltered from the heavy sea swell, but the prevailing strong winds kick up quite a chop, and the YUKON found it necessary to shift anchorage as the wind changed. Heavy

willy waws come off the glaciers at the southern end.



Kialagvik Bay from Δ Becharof.

All the entrances to the bay appear to be foul; however only one, the northern entrance was examined. The passage between the north entrance point and the northern group of islands has a depth of from 10 to 11 fathoms; about 600 meters N 35° E from the most northerly islet, a 5 fathom spot was found, and as it has not been developed, clearer water in the vicinity will probably be found. The existence of this spot shows the possibility of there being others, and as only a few soundings have been taken, this passage cannot be recommended until some additional work has been done.

The narrows between Coal Point and the northern group of islands are obstructed by a rocky reef which extends across the channel in a southeasterly direction from Coal Point. Soundings, which reduced to 4 feet, were

obtained on this reef and there is probably less. There is apparently a channel across this reef about 200 meters wide and about 19 feet deep. On account of the nature of the bottom, however, a very thorough development would be necessary before this channel could be recommended. It appears, however, that if this channel were surveyed and bouyed, it might prove feasible, for it is sheltered and vessels could anchor on either side and wait for favorable tide to cross if necessary.

No reliable sailing directions can be given on account of the lack of information. The YUKON used the following courses.

From a point 1/2 mile south of the island, off the northern entrance point (O Hump) follow a west (mag) course for about 2 1/2 miles passing 1/2 mile northward of the most northerly islet. Then this islet bears S.S.E. (mag) and with Coal Point and the next point to the westward on range, steer S 68 W (mag) for 1/2 mile, then S 15 W (mag) for 1 mile, giving the islets to the eastward of the course a berth of 1/3 mile; when across the bar hold off to the westward for the middle of the bay. So far as known, these courses are clear, but as so little sounding was done, they must be used with extreme caution. The first course passes over the 5 fathom spot previously mentioned, and as it has not been developed, it may prove to be a danger, and others may exist in the vicinity.

New Names Coal Point is the name locally used for the point opposite the northern group of islets. It was so named on a sketch map made by the Captain of one of the A.C.Co's sailing ships, who apparently entered here many years ago.

Wide Bay is used exclusively by all prospectors east. instead of Kialagvik Bay.

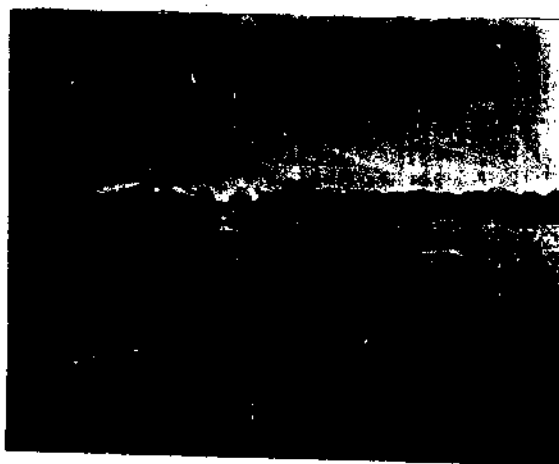
Respectfully

Respectfully submitted

J. J. Standy
J. J. Standy
U.S.C. & G. Survey.

A. M. Sobieralski
A. M. Sobieralski
U.S. Engineer

To the Director
U.S.C. & G. Survey
Washington D.C.



Kialagvik Bay from Cape Igvak
oHump in L. Foreground.
(Print is badly stained)

STATISTIC SHEET

To accompany Hydrographic sheet of Kialagvik Bay.

Miles.

Date ,1920 Letter Volume Positons Soundings Statute Vessels

September 22	:	A	:	1	:	20	:	71	:	4.0	:	Yukon
" 25	:	B	:	1	:	57	:	210	:	11.1	:	Yukon
///.....	:		:		:		:		:		:	
Total	:		:		:	77	:	281	:	15.1	:	

DIRECTOR
ADDRESS THE SECRETARY
U. S. COAST AND GEODETIC SURVEY

AND REFER TO NO. 41/VFB

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

WASHINGTON

November 30, 1920.



Division of Hydrography and Topography:

Division of Charts:

Tidal reductions are approved in
1 volume of sounding records for

HYDROGRAPHIC SHEET 4140

Kialagvik Bay, S. W. Alaska
F. H. Hardy in 1920.

* Plane of reference is
Mean lower low water, reading

4.5 ft. on tide staff at Erskine Dock, Kodiak.

* Allowance made for difference in
tide at place of soundings.

Condition of records, - satisfactory.

H. A. Mearns
Acting Chief, Section of Tides and Currents.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
WASHINGTON

December 22, 1920.

SECTION OF FIELD RECORDS.

Report on Hydrographic Sheet 4140. Surveyed in 1920.
Chief of Party: F. H. Hardy. Surveyed by party of Str.
Protracted by E. F. Lewis. Surveyor.
Soundings plotted by E. F. Lewis.
Verified and inked by J. D. Torrey.

1. The records conform to the requirements of the General Instructions, except that descriptions of beginnings and endings of lines were generally omitted. The lead-line was not checked at beginning of day's work.
2. As the survey is only a reconnaissance (see descriptive report) it cannot be considered as complying with the General Instructions for a finished survey.
3. The survey is within the scope of the specific instructions.
4. The descriptive report is unusually comprehensive, and the field drafting is good. The soundings should have been plotted in fathoms rather than in feet.
5. In view of the fact that this survey is a reconnaissance only, a complete survey should be made of this locality when opportunity offers.
6. Reviewed by E. P. Ellis, December 18, 1920.

Hydrographic Sheet No. 4140

Kialagvik Bay, Alaska

Captain Hardy states in his report that the work on this sheet can only be considered as reconnaissance work and as such there seems to be but little on which to report.

The sheet was protracted by the field party and was also platted in pencil by it but in fact this has been changed to fathoms.

The work appears good but there is hardly enough of it to be of use for navigating the harbor.

There is no projection on the sheet and not sufficient data to construct one.

John D. Torrey.
Dec 8. 1920

4140
Description of Plane Table
Stations in Kialagvik(Wide) Bay. Not any of the stat
stations are permanently marked.

SET

On the most Easterly island of the group of small ~~is~~
islands lying off the North entrance to Kialagvik Bay.

Station was marked by a stake five feet long driven
about two feet in the ground and a banner was tacked on it.
It is on the most Northerly and highest part of the island,
about five meters from the abrupt shoreline.

CAT

A grassy topped pinnacle, about twenty five feet high,
lying about three hundred meters South of SET, on the
inboard(mainland) side of the group of small islands South of
the North entrance to Kialagvik Bay.

TENT

A prospectors tent pitched on the shore of the longest
beach on the West shore of Kialagvik Bay.

COAL

On Coal Pt, which is the most prominent point on the
West shore of Kialagvik Bay. The station is about eight meters
from the outermost tangent of the point and was marked by a
one by three stake driven about a foot in the ground and a
small cairn of rock around it as a support.

The stake is driven alongside of an old Russian mark,
bearing the legend

T B + U C L M
B G M
W B

PIN

An arched pinnacle, just south of Coal Pt and
between Coal Pt. and an offlying island. Pinnacle is
about twenty five feet high.

HIGH

A sharp pinnacle at the Southeasterly end of the
island, which is about five hundred meters south of
Coal Pt. Pinnacle is about forty feet high.

BREAK

A rock lying about in the middle of the North arm
of Kialagvik Bay. The rock bares about four feet at an
ordinary low water. Rock is about twelve feet by five feet.

EAST

A pinnacle about forty feet high in the Northwest
arm of Kialagvik Bay. About six hundred meters from the West
shore of bay and further from the North shore.

WEST

A Pinnacle, projecting about thirty five feet above
a reef on the Mainland side of the islands. In a North and South
direction it is a little North of the center of the Kialagvik

Bay and is about six hundred meters from the nearest island. From WEST the tangent of Coal Point and the island South of Coal Point are nearly in range.

FLAG #3

A stake about four feet long driven about a foot in the ground. The stake is on the largest sand dune in the North west head of Kialagvik Bay and is about three hundred meters south of the large stream emptying in the bay.

HUMP or ID

A hummock about forty feet high lying on the easterly side of a lone island on the South shore of Cape Igvak.

*The following notes were prepared
for use with photostatic copies of H. 4140*

RECONNAISSANCE
(Not a Survey)

Wide
North Entrance ~~Kialagvik~~ Bay, Alaska

Hydrographic Sheet 4140 - Scale 1-20,000

Sounding in fathoms at mean lower low water.

NOTE: Great caution is necessary in making use of this reconnaissance. It is not certain the least depths were found on the shoals, and shoals may exist close to deep water soundings. No reliable sailing directions can be given, but the following extract from a report may be of assistance:

Cape Igvak is the southern extremity of a chain of conical peaks about 1800 feet in height. It is a conspicuous headland. A rocky reef extends about $1/4$ mile in a southeasterly direction from the point. From Cape Igvak the shore trends N.S.W. about 4 miles to a low point which forms the north entrance point of Kialagvik Bay. The shore is fringed by rocks and reefs. About 0.7 of a mile east of this point and $1/2$ mile off shore there is a low island. The shore has been sketched from a few tangents. O Hump is a little hill, distinguishable only from the westward. Breakers have been seen about $1/4$ mile south of the island. The passage between the island and the mainland has not been examined, but it appears to be foul.

Extending S.S.W. mag. from the north entrance point for about 11 miles is a chain of islands which forms the outer side of Kialagvik Bay. The bay varies from three to five miles in width, and is divided into two parts by the narrows, less than a mile wide between coal point and the northern group of islands.

The islands composing the northern group are all low and flat, covered with grass and brush. The shores are rocky, and many rocks and pinnacles are scattered among the islands. The islands to the southward are higher, the larger ones being about 125 feet high.

The western shore of Kialagvik Bay is a low plain fronting a chain of mountains. The shore line is mostly sandy, although the projecting points are usually rocky. Coal Point is low and flat. A small island and a pinnacle rock lie about $1/3$ of a mile southward of it. The point about $1/2$ mile west of Coal Point has the same general formation and appearance.

The part of Kialagvik Bay north of Coal Point, is open to the southeastward, but affords some shelter from N.E. and is protected from north to southwest. The YUKON anchored about $1/2$ mile off shore in 3 fathoms, sandy bottom, off the stream on the western side of the bay. Shoal water, with many rocks and reefs, extends as much as $1 1/4$ miles off the western shore. A conspicuous pinnacle rock, (East) 40 feet high lies about $1 1/2$ miles north of Coal Point and

foul ground extends about one mile southeastward from O East terminating in a long reef some points of which bare about three feet. It breaks on the southern end of this reef in moderate weather, (O Breaks). So far as known, the middle of the bay is clear with depths of twelve fathoms at the entrance, shoaling gradually towards the head.

The long arm indenting the north shore of the bay is very foul. Anchorage for small boats has been reported in this bay but the YUKON could find no entrance and the bay appears to be shoal and full of rocks.

The southern part of Kialagvik Bay extends about 11 miles south of Coal Point. The bottom is very irregular with depths up to 35 fathoms. So far as known there are no hidden dangers. The southern end is shoal a long distance from shore. The whole bay is sheltered from the heavy sea swell, but the prevailing strong winds kick up quite a chop, and the YUKON found it necessary to shift anchorage as the wind changed. Heavy willy waws come off the glaciers at the southern end.

All the entrances to the bay appear to be foul; however, only one, the northern entrance was examined. The passage between the north entrance point and the northern group of islands has a depth of from 10 to 11 fathoms; about 600 meters N 35° E from the most northerly islet, a 5 fathom spot was found, and as it has not been developed, shoaler water in the vicinity will probably be found. The existence of this spot shows the possibility of there being others, and as only a few soundings have been taken, this passage cannot be recommended until some additional work has been done.

The narrows between Coal Point and the northern group of islands are obstructed by a rocky reef which extends across the channel in a southeasterly direction from Coal Point. Soundings, which reduced to 4 feet, were obtained on this reef and there is probably less. There is apparently a channel across this reef about 200 meters wide and about 19 feet deep. On account of the nature of the bottom, however, a very thorough development would be necessary before this channel could be recommended. It appears, however, that if this channel were surveyed and buoyed, it might prove feasible, for it is sheltered and vessels could anchor on either side and wait for favorable tide to cross if necessary.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

HYDROGRAPHIC TITLE SHEET

The finished Hydrographic Sheet is to be accompanied by the following title sheet, filled in as completely as possible, when the sheet is forwarded to the Office.

U. S. Coast and Geodetic Survey.

Register No. 4140

State . . . S. W. Alaska
General locality Alaska Peninsula
Locality North Entrance to Kialagvik (Wide) Bay
Chief of party . . F. H. Hardy
Surveyed by . . A. M. Sobieralski and R. C. Overton, E. M. Dialek & E. F. Lewis
Date of survey . . September, 1920
Scale . . 1:20,000
Soundings in feet above mean lower low water
Plane of reference Mean lower low water
Protracted by E. F. Lewis . Soundings in pencil by E. F. Lewis
Inked by . E. F. Lewis Verified by *J. W. Torrey*

Records accompanying sheet (check those forwarded):

/ Des. ☒ Report, ☐ Tide books, ☐ Marigrams, ☐ Boat sheets,
☐ Sounding books, ☐ Wire-drag books, ☐ Photographs.

Data from other sources affecting sheet Shoreline from topographic sheet covering same area

Remarks: Soundings reduced from Tide Tables; Kodiak standard port and for correction interpolated between Katmai Bay and Anchorage Bay.